

What is claimed is:

1. An image forming apparatus for forming an image on a transfer material, comprising:

5 a rotatable photoconductive member;

a developing unit to form a toner image by developing an electrostatic image on the photoconductive member ;

a rotatable intermediate transfer member provided to contact the photoconductive member;

10 a first transfer section for transferring the toner image from the photoconductive member to the intermediate transfer member;

a second transfer section for transferring the toner image from the intermediate transfer member to the transfer material;

15 a first cleaning unit for cleaning a toner remaining on the photoconductive member;

a second cleaning unit for cleaning a toner remaining on the intermediate transfer member;

20 a fixing unit for fixing the toner image onto the transfer material; and

a controller to control a process of the image forming apparatus, wherein the controller controls the process so that when the image forming apparatus stops, a toner image α

formed on a non-image area of the photoconductive member is not kept nipped at the first transfer section nor at the second transfer section.

5 2. The image forming apparatus of claim 1, wherein when the apparatus stops, the controller controls to stop the rotation of the photoconductive member, and the intermediate transfer member, at the timing when the toner image α formed on the non-image area of the photoconductive member, is not
10 nipped at a contact area of the photoconductive member and the intermediate transfer member.

3. The image forming apparatus of claim 1, wherein the second transfer section comprises one of a roller and a belt,
15 contacting the intermediate transfer member, and when the apparatus stops, the controller controls to stop the rotation of the photoconductive member and the intermediate transfer member, at the timing when the toner image α formed on the non-image area of the photoconductive member, is not nipped
20 at the second transfer section.

4. The image forming apparatus of claim 3, wherein the controller controls to stop the rotation of the photoconductive member and the intermediate transfer member,

at the timing after the toner image α has passed through the contact area of the photoconductive member and the intermediate transfer member, and before the toner image α comes to the contact area of the second transfer section and the intermediate transfer member.

5. An image forming apparatus for forming an image on a transfer material, comprising:

a rotatable photoconductive member;

a developing unit to form a toner image by developing an electrostatic image on the photoconductive member ;

a rotatable intermediate transfer member provided to contact the photoconductive member;

a first transfer section for transferring the toner image from the photoconductive member to the intermediate transfer member;

a second transfer section for transferring the toner image from the intermediate transfer member to the transfer material;

a first cleaning unit for cleaning a toner remaining on the photoconductive member;

a second cleaning unit for cleaning a toner remaining on the intermediate transfer member;

a fixing unit for fixing the toner image onto the transfer material; and

a controller to control a process of the image forming apparatus, wherein when the image forming apparatus stops, the controller stops a rotation of the intermediate transfer member, after transferring a toner image α formed on a non-image area of the photoconductive member to the intermediate transfer member, and after cleaning the toner image α on the intermediate transfer member.

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6. An image forming apparatus for forming an image on a transfer material, comprising:

a rotatable photoconductive member;

a developing unit to form a toner image by developing an electrostatic image on the photoconductive member ;

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a rotatable intermediate transfer member provided to contact the photoconductive member;

a first transfer section for transferring the toner image from the photoconductive member to the intermediate transfer member;

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a second transfer section for transferring the toner image from the intermediate transfer member to the transfer material;

a first cleaning unit for cleaning a toner remaining on the photoconductive member;

a second cleaning unit for cleaning a toner remaining on the intermediate transfer member;

5 a fixing unit for fixing the toner image onto the transfer material; and

10 a controller to control a process of the image forming apparatus, wherein when the image forming apparatus stops, the controller controls to stop a rotation of the photoconductive member after controlling at least one of a transfer voltage and a transfer current of the first transfer section so that a majority of toner in a toner image α , which is formed on a non-image area of the photoconductive member, remains on the photoconductive member, and after
15 cleaning the majority of toner in the toner image α remaining on the photoconductive member.

7. An image forming apparatus for forming an image on a transfer material, comprising:

20 a rotatable photoconductive member;

 a developing unit to form a toner image by developing an electrostatic image on the photoconductive member ;

 a rotatable intermediate transfer member provided to contact the photoconductive member;

a first transfer section for transferring the toner image from the photoconductive member to the intermediate transfer member;

5 a second transfer section for transferring the toner image from the intermediate transfer member to the transfer material;

a first cleaning unit for cleaning a toner remaining on the photoconductive member;

10 a second cleaning unit for cleaning a toner remaining on the intermediate transfer member;

a fixing unit for fixing the toner image onto the transfer material; and

15 a controller to control a process of the image forming apparatus, wherein the controller controls the process so that when the image forming apparatus stops, a rotation of the intermediate transfer member stops after transferring a toner image α formed on a non-image area of the photoconductive member, onto the intermediate transfer member, and at the timing when the toner image α does not
20 come to an area near the fixing unit where a temperature is not lower than a glass transition point of a toner in the toner image α .

8. An image forming apparatus for forming an image on a transfer material comprising:

a rotatable photoconductive member;

a developing unit to form a toner image by developing
5 an electrostatic image on the photoconductive member ;

a rotatable intermediate transfer member provided to
contact the photoconductive member;

a first transfer section for transferring the toner
image from the photoconductive member to the intermediate
10 transfer member;

a second transfer section having a contact transfer
member for transferring the toner image on the intermediate
transfer member to the transfer material;

a cleaning unit for cleaning a toner remaining on the
15 intermediate transfer member; and

a controller to control a process of the image forming
apparatus,

wherein when a transfer material jam occurs, the
controller controls to release the pressure contact of the
20 contact transfer member of the second transfer unit to the
intermediate transfer member, and controls a transfer voltage
and a transfer current in the first transfer section so that
a residual toner image is transferred to the intermediate
transfer member, and controls to stop the rotation of the

intermediate transfer member after cleaning a toner remaining on the intermediate transfer member.

9. An image forming apparatus for forming an image on a transfer material comprising:

a rotatable photoconductive member;

a developing unit to form a toner image by developing an electrostatic image on the photoconductive member;

a rotatable intermediate transfer member provided to contact the photoconductive member;

a first transfer section for transferring the toner image from the photoconductive member to the intermediate transfer member;

a second transfer section having a contact transfer member for transferring the toner image on the intermediate transfer member to the transfer material;

a fixing unit for fixing the toner image onto the transfer material; and

a controller to control a process of the image forming apparatus,

wherein when a transfer material jam occurs, the controller controls to stop the intermediate transfer member and the photoconductive member when a residual toner image is not nipped between the intermediate transfer member and the

photoconductive member, after releasing the pressure contact of the contact transfer member of the second transfer section to the intermediate transfer member.

- 5 10. The image forming apparatus of claim 9, wherein when a transfer material jam occurs, the controller controls to stop the intermediate transfer member, after releasing the pressure contact of the contact transfer member of the second transfer section to the intermediate transfer member, when a
- 10 toner image α , which is formed on a non-image area of the photoconductive member, does not come to an area near the fixing unit where a temperature is not lower than a glass transition point of the toner.